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10/502,388	07/26/2004	Toshiki Taguchi	Q82713	3461

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

SHAH, MANISH S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/502,388

Applicant(s)

TAGUCHI ET AL.

Examiner

Manish S. Shah

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/26/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,835,240.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said patent claims and would be obvious thereby.

3. Claims 1-6 & 8-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 & 8-9 of copending Application No. 09/767,727 (# US 2001/0029869). Although the conflicting

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claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

In the above references, it is the examiner's position that it would have been obvious to one having ordinary skill in the art that: (1) the oxidation potential of the magenta dye is more positive than 1.0 V (vs SCE); (2) the magenta dye has an absorption maximum in a spectral range of from 500 to 580 nm, since the magenta dye (azo dye) of the above references are the same structure as those claimed by applicant.

4. Claims 1-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/471650 (# US 2004/0089200). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending application claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

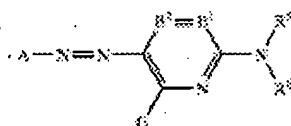
5. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Fujiwara et al. (# WO 02/083795 A2).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Fujiwara et al. discloses:

- An ink for ink jet recording, comprising an aqueous medium and a magenta dye dissolved or dispersed in the aqueous medium, the magenta dye being selected from azo dyes, wherein the magenta dye has an absorption maximum in a spectral range of from 500 to 580 nm in the aqueous medium and an oxidation potential of more positive than 1.0 V (vs SCE) (see Abstract; see Claim: 3).

- The azo dye has a chromophore represented by the following formula:
(heterocyclic ring A) –N=N– (heterocyclic ring B) wherein, the heterocyclic ring A and the heterocyclic ring B may be a same structure (see Claim: 14 & 18).
- The azo dye contains an azo group having an aromatic nitrogen-containing 6-membered heterocyclic ring that is directly connected to at least one end of the azo group as a coupling component (see Claim: 1).
- The azo dye has one of an aromatic cyclic amino group and a heterocyclic amino group-containing structure as an auxochrome or a stereo structure.
- The azo dye is a dye represented by the following formula (1) (see Claim: 4)



wherein A represents a 5-membered heterocyclic ring group; B1 and B2 each represents $=CR1-$ or $-CR2=$ or one of B1 and B2 represents a nitrogen atom while other represents $=CR1-$ or $-CR2=$; R5 and R6 each independently represents a hydrogen atom or a substituent which is an aliphatic group, an aromatic group, a heterocyclic ring, an acyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, a carbamoyl group, an alkylsulfonyl group, an arylsulfonyl group or a sulfamoyl group, a hydrogen atom of the substituent may be substituted; G, R1 and R2 each independently represents a hydrogen.

- The ink has an ozone fading rate constant of a recorded image, the ozone fading rate constant is $5.0 \times 10^{-2} [hr^{-1}]$ or less (see Examples).

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- The viscosity of from 1 to 20 mPa.sec at 25.degree.C, and has a static surface tension of from 25 to 50 mN/m at 25.degree.C (page: 154, line: 15-20).
- The ink has an electrical conductance of from 0.01 to 10 S/m (see Examples).
- The change of a viscosity and a surface tension of the ink from at 25.degree. C. to at 10.degree. C. are 250% or less and 130% or less, respectively (see Examples).
- The ink has no visibly detectable bleeding on an image-receiving material at a visible distance, the image-receiving material comprises an image-receiving layer on a support, and the image-receiving layer contains a white inorganic pigment particle or a gelatin-containing hardened layer as an image-recording layer (page: 160, line: 10-25).
- They also discloses a method for producing the ink for ink jet recording, which comprises a step of dissolving or dispersing the azo dye in the aqueous medium with an ultrasonic agitation; filtering the aqueous medium having the azo dye dissolved or dispersed in the aqueous medium through a filter having an effective pore diameter of 1 μm or less; and defoaming the filtered aqueous medium (see Examples).
- They also discloses an ink jet recording method using the ink, wherein an ink droplet is ejected onto an image-receiving material in accordance with a recording signal so that an image is recorded on the image-receiving material by using the ink for ink jet recording (page: 159, line: 10-25), the image-receiving material comprising an image-receiving layer on a support, the image-receiving layer (page: 160, line: 8-25) containing a white inorganic pigment particle (page: 161, line: 12-25) and at least one aqueous binder selected from a polyvinyl alcohol, a silanol-modified polyvinyl alcohol, a starch, a cationated starch, a gelatin, a carboxyalkyl cellulose, a casein and a polyvinyl

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pyrrolidone (page: 162, line: 1-13) and the image-receiving layer further contains a mordant selected from a polyaluminum chloride, a chromium compound and an azo dye-mordanting group-containing polymer (page: 162, line: 15-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being obvious over Yamanouchi et al. (# US 2002/0107301).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the

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application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Yamanouchi et al. discloses:

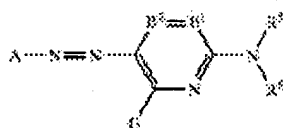
- An ink for ink jet recording, comprising an aqueous medium and a magenta dye dissolved or dispersed in the aqueous medium, the magenta dye being selected from azo dyes, wherein the magenta dye has an oxidation potential of more positive than 1.0 V (vs SCE) ([0241]).

- The azo dye has a chromophore represented by the following formula:
(heterocyclic ring A) –N=N– (heterocyclic ring B) wherein, the heterocyclic ring A and the heterocyclic ring B may be a same structure (see Abstract; [0035]).

- The azo dye contains an azo group having an aromatic nitrogen-containing 6-membered heterocyclic ring that is directly connected to at least one end of the azo group as a coupling component ([0034]–[0036]).

- The azo dye has one of an aromatic cyclic amino group and a heterocyclic amino group-containing structure as an auxochrome or a stereo structure (see Abstract).

- The azo dye is a dye represented by the following formula (1) (see Abstract)



wherein A represents a 5-membered heterocyclic ring group; B1 and B2 each represents =CR1- or --CR2= or one of B1 and B2 represents a nitrogen atom while other represents =CR1- or -CR2=; R5 and R6 each independently represents a hydrogen atom or a substituent which is an aliphatic group, an aromatic group, a heterocyclic ring, an acyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, a carbamoyl group, an alkylsulfonyl group, an arylsulfonyl group or a sulfamoyl group, a hydrogen atom of the substituent may be substituted; G, R1 and R2 each independently represents a hydrogen.

- The ink has an ozone fading rate constant of a recorded image, the ozone fading rate constant is $5.0 \times 10^{-2} \text{ [hr}^{-1}\text{]}$ or less (see Examples).
- The viscosity of from 1 to 20 mPa.sec at 25.degree.C, and has a static surface tension of from 25 to 50 mN/m at 25.degree.C ([0411]).
- The ink has an electrical conductance of from 0.01 to 10 S/m (see Examples).
- The change of a viscosity and a surface tension of the ink from at 25.degree. C. to at 10.degree. C. are 250% or less and 130% or less, respectively (see Examples).
- The ink has no visibly detectable bleeding on an image-receiving material at a visible distance, the image-receiving material comprises an image-receiving layer on a support, and the image-receiving layer contains a white inorganic pigment particle or a gelatin-containing hardened layer as an image-recording layer ([0415]-[0426]).
- They also discloses a method for producing the ink for ink jet recording, which comprises a step of dissolving or dispersing the azo dye in the aqueous medium with an ultrasonic agitation; filtering the aqueous medium having the azo dye dissolved or

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dispersed in the aqueous medium through a filter having an effective pore diameter of 1 μm or less; and defoaming the filtered aqueous medium (see Examples).

- They also discloses an ink jet recording method using the ink, wherein an ink droplet is ejected onto an image-receiving material in accordance with a recording signal so that an image is recorded on the image-receiving material by using the ink for ink jet recording, the image-receiving material comprising an image-receiving layer on a support, the image-receiving layer ([0415]-[0426]) containing a white inorganic pigment particle ([0427]-[0428]) and at least one aqueous binder selected from a polyvinyl alcohol, a silanol-modified polyvinyl alcohol, a starch, a cationated starch, a gelatin, a carboxyalkyl cellulose, a casein and a polyvinyl pyrrolidone ([0430]-[0431]) and the image-receiving layer further contains a mordant selected from a polyaluminum chloride, a chromium compound and an azo dye-mordanting group-containing polymer ([0432]-[0433]).

Yamanouchi et al. differs from the claim of the present invention is that the magenta dye has an absorption maximum in a spectral range of from 500 to 580 nm.

However, this limitation is consider to be obvious, because there does not appear to be any reason why the cited reference would not contains an ink composition with applicant's claimed properties since the azo dye of the above reference is the same structure as those claimed by applicants.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

5/5/06